

Notice of Allowability

Application No.

10/802,771

Examiner

Jimmy H. Nguyen

Applicant(s)

TOBITA ET AL.

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Response to Election/Restriction filed on 12/29/2006.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. This Office Action is made in response to applicant's RESPONSE TO ELECTION REQUIREMENT AND AMENDMENT, filed on 12/29/2006.
2. Applicant's election **without** traverse of Group A (claims 1-11) and Species 1A (claims 1-3 and 6) illustrated in figures 1-6 in the reply filed on 12/29/2006 is acknowledged. Claim 1 is generic and allowable. Accordingly, claims 4, 5 and 7-11, directed to non-elected species, are no longer withdrawn from consideration since all of the claims to this species depend from or otherwise include each of the limitations of an allowable generic claim.
3. This application is in condition for allowance except for the presence of claims 12-20 directed to an invention non-elected without traverse. Accordingly, claims 12-20 have been cancelled.
4. The application has been amended as follows:

 In the claim:

 Claims 12-20: cancelled.

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance: the claimed invention is directed to a digital/analog conversion device outputting an analog voltage according to digital data of a plurality of weighted bits. Independent claim 1 identifies the uniquely distinct features, "said charge pump circuit including ... a switch element connected between said second node and said output node to be turned on at a timing at which said first transition edge of each of said pulses is transmitted to said first node and turned off at a timing at which said second transition edge thereof is transmitted to said first node and a bias circuit changing, according to the change

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of the voltage on said output node, a voltage on said second node with the same polarity as that of the change of the voltage on said output node", presently recited in last 9 lines. The closest prior arts, Frank et al. (US 6,157,332, see Fig. 1) disclosing a digital/analog conversion device (an integrated self-calibrating DAC 100; Fig. 1; col. 2, lines 1-2), which comprises a pulse number control circuit (a circuit including elements 102 and 104; see Fig. 1) and a charge pump circuit (a variable reference voltage generator 106), and Da Franca et al. (EP 0 604 397, cited in IDS filed on 02/01/2007) disclosing a digital/analog conversion device (a device shown in Fig. 6), which comprises a pulse number control circuit (a circuit including elements CS0-CSw-1, SA0-SAw-1; see Fig. 6) and a charge pump circuit (a circuit including elements C, S0, OA, CF, SF, and their connections; see Fig. 6), either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

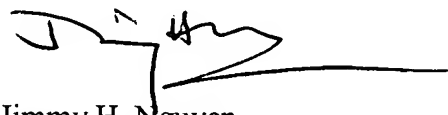
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is 571-272-7675. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHN
February 19, 2007

A handwritten signature in black ink, appearing to read 'JHN', followed by a long horizontal line extending to the right.

Jimmy H. Nguyen
Primary Examiner
Technology Division: 2629